

between their wall-buttresses;* so that in fact, the whole form, position, and management of the counter-abutments of Gothic vaultings, were like those of a human skeleton, placed in a leaning posture, with the bones of the legs away from the base, those of the hands and arms pressing against the moving part of the vault, with the skull erect to confirm and steady the spine, and the whole strengthened by sufficient flesh and muscle.

That the true mechanical office of the pinnacles of pointed architecture is as stated above, appeared to the author to be so evident, that it at once struck him after coming to the knowledge, that the double set of flying-buttresses on the south side of Westminster Abbey must be respectively inclined so as to receive within their solid substance the pressure of the vaulting; and that on account of the operation of the two sets of pinnacles, the lower flying-buttress must be set more uprightly than the upper one: this upon examination proved to be the case, shewing that if the original builders were not fully versed in the subject (which may be greatly doubted), Wren, who restored these buttresses, was so, and probably by his great scientific knowledge was enabled to adjust more accurately their proper positions. The great masters who had to do with this fabric could not avoid the great extra consumption of materials which arose from removing the great buttresses away from the wall out into the cloister-green, in order to leave room for the north avenue of the cloister: but having a difficult task to perform, they performed it with admirable skill, and with knowledge greater than is exhibited in many of the Continental Cathedrals, some of which have two sets of buttresses in order to admit side chapels.

With what humility should we look upon our whole modern use of buttresses, pinnacles, and abutments, which we pretend are the results of a far outstripping science, and of an improved taste,—while men whom we have been in the habit of calling barbarians have in a dark age (more enlightened in many things than the best ages of Greece and Rome) at once mingled in their works, poetry, economy, taste, strength, and invention.—From *Essay on the Decline of Science &c. in Modern English Buildings*. By Alfred Bartholomew, Esq., F.A.S., Secretary to the Free-masons of the Church.

Literature.

A Descriptive and Historical Account of the Churches of the Division of Holland, in the County of Lincoln, with Illustrations. by STEPHEN LEWIN, Architect. T. N. Morton, Boston. Simpkin and Marshall, Olliver and Weale, London.

If all those who have the opportunity would do as much as Mr. Lewin has attempted for the district in which he resides, we should soon have a collection of great interest and importance referring to our ancient parochial churches. It would not require much of abstruse calculation to prove, that the combined purpose of such gentlemen as Mr. Lewin, upon something of the plan recommended by us in last week's number, under the head "Gothic Architecture," would be infinitely more economical and advantageous than the one upon which Mr. Lewin's public spirit and enthusiasm for his art has thrown him. Here at the non-remunerating charge of 1s. 6d. each number (when we consider the limited number of subscribers which such a work will command), Mr. Lewin has undertaken what the title purports, and we have No. XI. before us for December last, to which he had then attained. This work will circulate locally and among a few of the liberal encouragers of such enterprises; whereas it is entitled to, and ought to have a national circulation, and in return for Mr. Lewin's generous devotion to his labour, he ought to be kept in countenance by, and favoured with, the corresponding efforts of similar labourers.

* Mr. Savage, at the New Chelsea Church, has omitted the inactive parts of the wall-buttresses in order to admit a free passage in the dry arena which surrounded the basement-story of the edifice: but he has not changed the drift in the flying-buttresses by placing pinnacles over the wall-buttresses: allowing the present wall-buttresses of the Church to be sufficient, the present combustible ceilings over the galleries of the Church might be exchanged for groined roofs of stone, and the addition of pinnacles would still confine the drift within the present wall-buttresses, notwithstanding the added drift of the new side vaults. More upon this subject will be seen in the author's papers on the Broken Canopy.



NORMAN PORCH.

We are indebted to an esteemed friend for the above drawing of the North Doorway of the Nave of Tachbrook Church, Warwickshire; we commend it for its clearness and simplicity, as a good working example for the student in this particular style.

ENGLISH ARCHITECTS.

SIR CHRISTOPHER WREN.

(Continued from the last No.)

It may be supposed that the plans for the building had now been decided on, yet the progress was so slow, we are left to doubt that such was the fact; an opposition to departure from the form and interior disposition of churches in past times was maintained in the highest quarters, and the king, always singularly indifferent upon religious matters, hesitated to interpose his authority. Thus nine years were suffered to pass merely in clearing the site and in preparations; for it was not until 1675 that the final order was given to proceed with the new structure. Other causes, however, than want of unanimity have been assigned for the delay, namely, the non-productiveness of the coal tax imposed for this especial purpose; and the very moderate pressure upon the labouring hand, as compared with modern practice.

Inert as may have been the overseers and workmen employed under Wren, the tide of his personal activity had fairly set in, and for nearly half a century there was no intermission to its onward course; the quaint yet expressive summary of his labours given by Horace Walpole has not yet been equalled by any subsequent biographer: "the length of his life enriched the reign of several princes, and disgraced the last of them. A variety of knowledge, proclaims the universality, a multiplicity of works the abundance, St. Paul's the greatness of Sir C. Wren's genius. The noblest temple, the largest palace, the most sumptuous hospital in such a country as Britain are all the works of the same hand."

In the interval preceding the laying of the foundations of St. Paul's he had other works in hand. The theatre at Oxford, built and endowed by the individual munificence of Archbishop Sheldon, was the first completed (1669). It was opened, we are told, by a most splendid act, and the architect presented by the founder with a golden cup, who in addition appointed him, jointly with the vice-chancellor of the university, perpetual curator of the fabric. This building was celebrated for its geometrical roof, covering a space eighty feet long by seventy broad, without the aid of columns. The details of this masterly piece of carpentry are extant, but too elaborate for explanation at this moment. The erection of

the Monument on Fish-street-hill, commenced in 1671, by an order of the Commons, in commemoration of the great fire, and the rebuilding of the city, was also far advanced, and when finished, in 1677, was a realisation of one of the many objects designed to ornament the new metropolis. The plinth sculptured by Gibber, still retains an inscription obnoxious from the moment the chisel had done its work at the bidding of a faction; national justice has been tardy in decreeing the erasure of the calumny, and we still labour under the reproach that

"London's proud column pointing to the skies,
Like a tall bully lifts its head and lies."

Wren's great work now proceeded with a steadiness that met no material interruption until the placing of "the highest or last stone on the top of the lantern (in 1710), by the hands of the surveyor's son, C. Wren, deputed by his father, in the presence of that excellent artificer, Mr. Strong, his son, and other free and accepted masons, chiefly employed in the execution of the work;" having occupied thirty-five years in building. We will not here attempt a professional description, or opinion of St. Paul's; its importance as the metropolitan church, and the particular era of its erection, being that of transition on the most extensive scale from the ancient style, has more than ordinary claim to a deliberate canvassing. We are told, historically that the building is one of many designs submitted by the architect, and that finally he wrought out this, which by repeated alterations had been rendered less objectionable to parties whom it was necessary at least to conciliate, a disadvantage entitled to full weight in any estimate to be formed of his ability from the example in question.

Wren had also had it in command from the king to submit plans for laying out the streets and squares of the new city; the principal and secondary of the former he proposed should be ninety and sixty feet wide, and lanes thirty, to the exclusion of alleys; the north bank of the Thames, from London Bridge to the Temple Gardens to be formed into a splendid terrace, churches to be built in the principal streets, as easy of access, and suited to architectural display; the removal of all grave-yards, and the substitution of cemeteries to be marked out at a distance from the populous districts. There is indeed scarcely a feature of his plan